## (19) World Intellectual Property Organization International Bureau





(43) International Publication Date 14 July 2005 (14.07.2005)

**PCT** 

## (10) International Publication Number WO 2005/063508 A1

(51) International Patent Classification7:

B60C 11/18

(21) International Application Number:

PCT/IT2003/000866

(22) International Filing Date:

30 December 2003 (30.12.2003)

(25) Filing Language:

**English** 

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): PIRELLI PNEUMATICI S.P.A. [IT/IT]; Viale Sarca, 222, I-20126 Milano (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BOIOCCHI, Maurizio [IT/IT]; c/o Pirelli Pneumatici S.p.A., Viale Sarca, 222, I-20126 Milano (IT). MATRASCIA, Giuseppe [IT/IT]; c/o Pirelli Pneumatici S.p.A., Viale Sarca, 222, I-20126 Milano (IT).

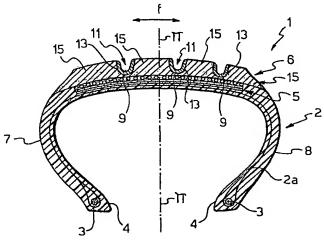
- (74) Agents: BOTTERO, Claudio et al.; Porta Checcacci & Associati S.p.A., Via Trebbia, 20, I-20135 Milano (IT).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

[Continued on next page]

(54) Title: TIRE FOR VEHICLES



(57) Abstract: A pneumatic tire (1) is described comprising: a carcass structure (2) having at least one carcass ply (2a), and at least one annular reinforcing structure (3) associated to said carcass ply (2a), a pair of axially opposite side walls (7, 8) on the carcass structure (2), a belt structure (5) arranged at a radially outer position with respect to the carcass structure (2) and a tread band (6), arranged at a radially outer position with respect to the belt structure (5), and generally consisting of a first elastomeric material incorporating at least one portion substantially consisting of a second elastomeric material; wherein the tread band (6) comprises at least one groove (11) defined in the at least one portion substantially consisting of the second elastomeric material; wherein the ratio between the modulus of elasticity (E') under compression at 100°C of the second elastomeric material and the modulus of elasticity (E') under compression at 100°C of the first elastomeric material, measured in accordance with standard ISO 48, and the IRHD hardness at 100°C of the first elastomeric material, measured in accordance with standard ISO 48, is lower than about 1.10.





For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.